



HEADQUARTERS

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Grill Safety

On January 1, 2015 Massachusetts implemented a new revised fire code. The new code is a national code with Massachusetts amendments and is referred to as 527 CMR 1:00: Massachusetts Comprehensive Fire Safety Code. This new code specifically addresses barbecue grills (open flame cooking devices) directly for the first time. Previously, the fire prevention code addressed only the use and storage of propane gas and not the use and placement of grills.

We have reviewed the Massachusetts Comprehensive Fire Safety Code and had several discussions with the State Fire Marshal's Office regarding the use and placement of outdoor cooking devices. Grills can be categorized as open flame cooking devices and electric grills. The type of grill influences the hazards and regulations of the use and storage of these units. Our discussions with the State Fire Marshal's Office and research involved both types of grills. It is our understanding that the Board of Fire Prevention Regulations is considering making some changes to the fire code in the area of grill regulations.

Open Flame Cooking Devices:

An example of an open flame cooking device is a hibachi, charcoal grill, gas grill or similar unit using an open flame. Under the Massachusetts Comprehensive Fire Safety Code these grills are regulated based upon the type of grill (open flame or electric) and the number of residential units in the building. Under the current fire safety code only a single family home is allowed to have a gas grill used on a first floor balcony if an outdoor stairway is present that leads to the ground. The requirement for an exterior stairway is to allow a propane tank to be removed and installed on the grill without bringing the tank into the home.

For buildings other than a single family home (town houses, two family and multi-tenant buildings), open flame grills are not permitted to be used on any balcony, under any overhanging portion of the building or within ten feet of any structure.

Electric Grills:

The Massachusetts Comprehensive Fire Safety Code does not regulate the use and or storage of electric grills on balconies. **However, due to the potential loss of life and extreme structural damage caused by improper cooking operations, the Reading Fire Department recommends electric grills not be used on balconies or decks of multifamily dwellings.** We recommend these devices be placed on the ground, away from combustible material and used in accordance with the manufacturer's instructions.

Any type of grill can present a risk to lives and property if they are not used and maintained properly. The United States Fire Administration issued a report titled Grill Fires on Residential Properties in May of 2010. The findings of the report were as follows:

- Grill fires on residential properties result in an estimated average of 10 deaths, 100 injuries and \$37 million in property loss each year.
- Almost half (49%) of grill fires on residential properties occur from 5p.m. to 8p.m.
- Over half (57%) of grill fires on residential properties occur in the months of May, June, July and August.
- Thirty two percent of grill fires on residential properties start on patios, terraces, screened in porches or courtyards. An additional 24 percent start on exterior balconies and unenclosed porches.
- The leading category of equipment power source is “gas fuels” (79%). Within this category, propane is the power source in 69 percent of all grill fires on residential properties.
- “Heat from powered equipment” is the leading heat source category for grill fires on residential properties (47%). Within this category, spark, ember or flame from operating equipment accounts for 28 percent of all grill fires on residential properties.
- The leading category of factors contributing to ignition is “mechanical failure, malfunction (35%). Within this category, leaks or breaks of containers or pipes account for 23 percent of all grill fires on residential properties.

Gas Grill Safety:

Gas grills are safe and convenient when they are assembled and used properly. Gas grills are fueled by liquid propane which is pressurized and requires special handling and storage.

1. Make sure that the lid of a gas grill is open when you light it. Propane can build up inside a closed container and ignite violently causing injury.
2. If you smell gas while cooking, turn the grill off and get away from the grill. Call 911 from a safe location. Do not move the grill.
3. Always turn off the burners and close the propane cylinder when done cooking.
4. Never leave a burning grill unattended.
5. Have a fire extinguisher close by when grill is in use

Handling Propane:

1. Keep all propane tanks outdoors, at least 10 feet away from building openings such as doors, windows and dryer vents, and 20 feet away from air intake vents and ignition sources.
2. Do not smoke while handling a propane cylinder.
3. Store propane tanks upright in an outdoor shaded area. Do not leave tanks in a vehicle. Tanks should not be used, stored, or transported where they can be exposed to high temperatures.

Gas Grill Care and Maintenance:

1. Always follow the instructions in your owner’s manual for the care and maintenance of your gas grill.
2. Check that all connections are tight before turning on the gas.

3. Leaks can be detected by dabbing the connections with a solution of soapy water and turning on the gas momentarily. If bubbles occur, there is a leak that must be fixed before the grill is used. Do not use matches or lighters to check for leaks.
4. Check the tubes to the burners for blockages resulting from insect nests or from grease. Use a pipe cleaner or wire to clear blockages.
5. Clean the grease trap every time you grill.
6. Take tanks and grills that need repair to a propane dealer or a qualified appliance repair person.
7. Replace propane tanks that are old, rusty, or showing any other signs of disrepair.

Electric Grill Safety Precautions:

The following safety precautions should be used when cooking with electric grills:

1. All grills must be UL Listed and used in accordance with its listing and the manufacturer's instructions. This includes the positioning of the grill during use with appropriate clearance to combustible materials. For example one manufacturer recommends a 24" clearance be maintained from walls, railings, furniture and other combustible materials. It is very important to maintain the proper clearance.
2. The grill must be attended while in use, kept clean of grease and maintained for safe operation.
3. A fire extinguishing device such as an ABC rated fire extinguisher approved for use around electricity should be kept close to the grill while in use.
4. All electrical cords must be maintained, plugged into a grounded electrical receptacle and rated for the portable grill.
5. Extension cords must be listed for outdoor use, sized properly for the grill and unplugged after use.
6. Never pass electrical cords through walls, doorways, windows or any other types of pass-through.
7. The grill should be stored outside and covered when not in use.

Charcoal Grill Safety:

Gas grills are the most popular grill, however some people still prefer to use charcoal grills for their barbecues. It is important to note that charcoal grills have some potentially dangerous components that the user must be familiar with when using this type of grill.

1. Never use gasoline or kerosene to start the fire.
2. Always use charcoal grills outside in a well-ventilated area. Charcoal briquettes give off the deadly gas carbon monoxide.
3. After using charcoal starter fluid, cap the container and move it away from the fire. Never add any type of starter fluid once the coals are burning.
4. To stop flare-ups, move cooking grid up and spread out coals.
5. Allow coals to burn out completely and let ashes cool for 48 hours.
6. If you must dispose of the ashes before fully cooled, soak them completely in water before putting them in a non-combustible container.
7. Have a fire extinguisher close by when grill is in use.